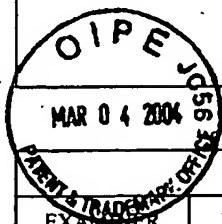


Date Mailed: March 1, 2004

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FORM 1449* <b>INFORMATION DISCLOSURE STATEMENT</b>  IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 12152.90USC1	Application Number: 10/726,333
	Applicant: UCKUN ET AL.	
	Filing Date: 12/01/2003	Group Art Unit: UNKNOWN



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
SW	5,593,993	01/1997	Morin et al.	514	247	
SW	5,658,907	08/1997	Morin et al.	514	247	

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
SW	0 540 143 A2, A3	05/05/1993	EP				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

SW		Ahgren C, Backro K, Bell FW, Cantrell AS, Clemens M, Colacino JM, Deeter JB, Engelhardt JA, Jaskunas HM, Johansson NG, Jordan CL, Kasher JS, Kinnick MD, Lind P, Lopez C, Morin MJ, Muesing MA, Noreen R, Oberg B, Paget CJ, Palkowitz JA, Parrish CA, Pranc P, Rippey MK, Rydergard C, Sahlberg C, Swanson S, Ternansky RJ, Unge T, Vasileff RT, Vrang L, West SJ, Zhang H, Zhou XX. "The PETT series, a new class of potent nonnucleoside inhibitors of human immunodeficiency virus type 1 reverse transcriptase", <i>Antimicrob Agents Chemother</i> , Vol. 39, pp. 1329-1335 (1995).
		Baba M, Shigeta S, Tanaka H, Miyasaka T, Ubasawa M, Umezaki K, Walker RT, Pauwels R, De Clercq E. "Highly potent and selective inhibition of HIV-1 replication by 6-phenylthiouracil derivatives", <i>Antiviral Res</i> , Vol. 17, pp. 245-264 (1992).
		Baccetti B, Benedetto A, Burrini AG, Collodel G, Ceccarini C, Crisa E, DiCaro A, Garbuglia AR, Massacesi A, Piomboni P, Solazzo D. "HIV-1 particles in spermatozoa of patients with AIDS and their transfer into the oocytes", <i>J Cell Biol</i> , Vol. 127, pp. 903-914 (1994).
		Balzarini J, Perez MJ, San Felix A, Schols D, Perno CF, Vandamme AM, Camarasa MJ, De Clercq E. "2',5'-Bis-O-(tert-butylidimethylsilyl)-3'-spiro-5''-(4'-amino-1'',2''-oxathiole-2'',2'-dioxide)pyrimidine (TSAO) nucleoside analogues: highly selective inhibitors of human immunodeficiency virus type 1 that are targeted at the viral reverse transcriptase", <i>Proc Natl Acad Sci U S A</i> , Vol. 89, pp. 4392-4396 (1992).
		Bell FW, Cantrell AS, Hogberg M, Jaskunas SR, Johansson NG, Jordan CL, Kinnick MD, Lind P, Morin JM, Jr, Noreen R, Oberg B, Palkowitz JA, Parrish CA, Pramo P, Sahlberg C, Ternansky RJ, Vasileff RT, Vrang L, West SJ, Zhang H, Zhou XX. "Phenethylthiazolethiourea (PETT) compounds, a new class of HIV-1 reverse transcriptase inhibitors. 1. Synthesis and basic structure-activity relationship studies of PETT analogs", <i>J Med Chem</i> , Vol. 38, pp. 4929-4936 (1995).
SW		Bosworth N, Towers P. "Scintillation proximity assay", <i>Nature</i> , Vol. 341, pp. 167-168 (1989).

EXAMINER <u>S. W. [Signature]</u>	DATE CONSIDERED <u>2/19/07</u>
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	Applicant: UCKUN ET AL.	
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52	Cantrell AS, Engelhardt P, Hogberg M, Jaskunas SR, Johansson NG, Jordan CL, Kangasmetsa J, Kinnick MD, Lind P, Morin JM, Jr, Muesing MA, Noreen R, Oberg B, Pranc P, Sahlberg C, Ternansky RJ, Vasileff RT, Vrang L, West SJ, Zhang H. "Phenethylthiazolylthiourea (PETT) compounds as a new class of HIV-1 reverse transcriptase inhibitors. 2. Synthesis and further structure-activity relationship studies of PETT analogs", <i>J Med Chem</i> , Vol. 39, pp. 4261-4274 (1996).
	"CDCP Update: US HIV and AIDS cases reported through December 1996", <i>HIV/AIDS Surveillance Report</i> , Vol. 8, pp. 8:1-33 (1997).
	Celum CL, Watts DH. "HIV and Women" In: Spach DL, Hooton RM (eds.) <i>The HIV manual</i> . New York: Oxford University Press, pp. 120-127 (1996).
	Chantler E. "Vaginal spermicides: some current concerns", <i>British Family Planning</i> , Vol. 17, pp. 17:118-119 (1992).
	Cook RL, Rosenberg MJ. "Do spermicides containing nonoxynol-9 prevent sexually transmitted infections?", <i>Sex Transm Dis</i> , Vol. 25, pp. 144-150 (1998).
	Cookson C. "WHO to concentrate HIV strategy on vaginal microbicide", <i>Br Med J</i> , Vol. 307, pp. 1375-1376 (1993).
	D'Cruz OJ, Ghosh P, Uckun FM. "Spermicidal activity of metallocene complexes containing vanadium(IV) in humans", <i>Biol Reprod</i> , Vol. 58, pp. 1515-1526 (1998).
	D'Cruz OJ, Uckun FM. "Novel derivatives of phenethyl-5-bromopyridylthiourea and dihydroalkoxybenzoxypyrimidine are dual-function spermicides with potent anti-human immunodeficiency virus activity", <i>Biol Reprod</i> , Vol. 60, pp. 1419-1428 (1999).
	D'Cruz, O. et al., "Novel Thiourea Compounds as Dual-Function Microbicides," <i>Biology of Reproduction</i> , Vol. 63, pp. 196-205 (June 19, 2000)
	Danel K, Larsen E, Pedersen EB, Vestergaard BF, Nielsen C. "Synthesis and potent anti-HIV-1 activity of novel 6-benzyluracil analogues of 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine", <i>J Med Chem</i> , Vol. 39, pp. 2427-2431 (1996).
	Danel K, Pedersen EB, Nielsen C. "Synthesis and anti-HIV-1 activity of novel 2,3-dihydro-7H-thiazolo[3,2-a]pyrimidin-7-ones", <i>J Med Chem</i> , Vol. 41, pp. 191-198 (1998).
	De Clercq E. "Inhibitors targeted at the reverse transcriptase", <i>J Acquired Immune Defic Syndr Res Human Retrovirus</i> , Vol. 8, pp. 119-134 (1988).
	Ding J, Das K, Moereels H, Koymans L, Andries K, Jansen PA, Hughes SH, Arnold E. "Structure of HIV-1 RT/TIBO R 86163 complex reveals similarity in the binding of diverse nonnucleoside inhibitors", <i>Nat Struct Biol</i> , Vol. 2, pp. 407-415 (1995).
	Ding J, Das K, Tantillo C, Zhang W, Clark Jr, AD, Jessen S, Lu X, Hsiou Y, Jacobo-Molina A, Andries K, Pauwels R, Moereels H, Koymans L, Janssen PAJ, Smith RHJ, Kroeger-Koepeke R, Michejda CJ, Hughes SH, Arnold E. "Structure of HIV-1 reverse transcriptase in a complex with the non-nucleoside inhibitor alpha-APA R 95845 at 2.8 A resolution", <i>Structure</i> , Vol. 3, pp. 365-379 (1995).
	Eric A, Lieler CL, Meyers DE, Sannerund KJ, Irvin JD, Balfour HH, Uckun FM. "Inhibition of zidovudine (AZT)-sensitive strains of human immunodeficiency virus type 1 by pokeweed antiviral protein targeted to CD4+ cells", <i>Antimicrob Agents Chemother</i> , Vol. 37, pp. 835-838 (1993).
	Greene WC. "The molecular biology of human immunodeficiency virus type 1 infections", <i>N Engl J Med</i> , Vol. 324, pp. 324:308-317 (1991).
	Heinisch G, Matuszczak B, Pachler S, Rakowitz D. "The inhibitory activity of diazanyl-substituted thiourea derivatives on human immunodeficiency virus type 1 reverse transcriptase", <i>Antivir Chem Chemother</i> , Vol. 8, pp. 443-446 (1997).
50	Hira SK, Feldblum PJ, Kamanga J, Mukelabai G, Weir SS, Thomas JC. "Condom and nonoxynol-9 use and the incidence of HIV infection in serodiscordant couples in Zambia", <i>Int J STD AIDS</i> , Vol. 8, pp. 243-250 (1997).

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	Applicant: UCKUN ET AL	
	Filing Date: 12/01/2003	Group Art Unit: UNKNOWN

S		Hogberg M, Sahlberg C, Engelhardt P, Noreen R, Kangasmetsa J, Johansson NG, Oberg B, Vrang L, Sahlberg BL, Unger T, Logren S, Fridborg K, Backbro K. "Urea-PETT compounds as a new class of HIV-reverse transcriptase inhibitors. 3. Synthesis and further structure-activity relationship studies of PETT analogues", <i>J Med Chem</i> , Vol. 42, pp. 4150-4160 (1999).
		Hooten TM, Hillier S, Johnson C, Roberts PL, Stamm WE. "Eschericia coli bacteriuria and contraceptive method", <i>JAMA</i> , Vol. 265, pp. 64-69 (1991).
		Hsiou Y, Das K, Ding J, Clark AD Jr, Kleim JP, Rosner M, Winkler I, Riess G, Hughes SH, Arnold E. "Structure of tyr188Leu mutant and wild-type HIV-1 reverse transcriptase complexed with the non-nucleoside inhibitor HBV 097: inhibitor flexibility is a useful design feature for reducing drug resistance", <i>J Mol Biol</i> , Vol. 284, pp. 313-323 (1998).
		Kohlstaedt LA, Wang J, Friedman JM, Rice PA, Steitz TA. "Crystal structure at 3.5 A resolution of HIV-1 reverse transcriptase complexed with an inhibitor", <i>Science</i> , Vol. 256, pp. 1783-1790 (1992).
		Kreiss J, Ngugi E, Holmes K, Ndinya AJ, Waiyaki P, Roberts PL, Ruminjo I, Ajabi R, Kimata J, Fleming TR, Anzala A, Holton D, Plummer F. "Efficacy of nonoxynol-9 contraceptive sponge use in preventing heterosexual transmission of HIV in Nairobi prostitutes", <i>JAMA</i> , Vol. 268, pp. 477-482 (1998).
		Lange JMA, Karam M, Plot P. "Boost for vaginal microbicides against HIV", <i>Lancet</i> , Vol. 341, pp. 1356-1359 (1993).
		Mai A, Artica M, Sbardella G, Quartarone S, Massa S, Loi AG, Montis AD, Scintu F, Putzolu M, La Colla P. "Dihydro(alkylthio)(naphthylmethyl)oxypyrimidines: Novel non-nucleoside reverse transcriptase inhibitors of the S-DABO series", <i>J Med Chem</i> , Vol. 40, pp. 1447-1454 (1997).
		Mann J, Tarantola D. "The global AIDS pandemic" In: <i>Velji AM (ed.), Infectious Disease Clinics of North America. Philadelphia: Saunders</i> ; pp. 275-285 (1995).
		Mao C, Sudbeck E, Venkatachalam TK, Uckun FM. "Structure-based drug design of non-nucleoside inhibitors for wild type and drug resistant HIV reverse transcriptase", <i>Biochem Pharmacol</i> , (2000 in press).
		Mao C, Vig R, Venkatachalam TK, Sudbeck EA, Uckun FM. "Structure-based design of N-[2-(1-piperidinylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea and N-[2-(1-piperzainylethyl)]-N'-[2-(5-bromopyridyl)]-thiourea as potent non-nucleoside inhibitors of HIV-1 reverse transcriptase", <i>Bioorg Med Chem Lett</i> , Vol. 8, pp. 2213-1118 (1998).
		Mati JK, Hunter DF, Maggwa BN, Tukei PM. "Contraceptive use and the risk of HIV infection in Nairobi, Kenya", <i>Int J Obstet Gynecol</i> , Vol. 48, pp. 61-67 (1995).
		McGroarty JA, Chong S, Reid G, Bruce AW. "Influence of the spermicidal compound nonoxynol-9 on the growth and adhesion of urogenital bacterial in vitro", <i>Curr Microbiol</i> , Vol. 21, pp. 219-223 (1990).
		Mitsuya H, Yarchoan R, Broder S. "Molecular targets for AIDS therapy", <i>Science</i> , Vol. 249, pp. 1533-1544 (1990).
		Niruthisard SR, Roddy E, Chutivongse S. "The effects of frequent nonoxynol-9 use on the vaginal and cervical mucosa", <i>Sex Transm Dis</i> , Vol. 18, pp. 176-179 (1991).
		Osborn JE. "Women and HIV/AIDS: the silent epidemic", <i>Sex Info Educ Council US Rep</i> , Vol. 19, pp. 1-4 (1991).
		OTC Panel. "Vaginal contraceptive drug products for over-the counter human use", <i>Federal Register</i> , Vol. 45, pp. 82014-82049 (1980).
		Pauwels R, Andries K, Desmyter J, Schols D, Kukla MJ, Breslin HJ, Raeymaeckers A, Van Gelder J, Woestenborghs R, Heykants J, Schellekens K, Janssen MAC, De Clercq E, Janssen PA. "Potent and selective inhibition of HIV-1 replication in vitro by a novel series of TIBO derivatives", <i>Nature</i> , Vol. 343, pp. 470-474 (1990).
		Pontikis R, Benhida R, Aubertin AM, Grierson, DS, Monneret C. "Synthesis and anti-HIV activity of novel N-1 side chain-modified analogs of 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine (HEPT)", <i>J Med Chem</i> , Vol. 40, pp. 1845-1854 (1997).
S		Potts M. "The urgent need for a vaginal microbicide in the prevention of HIV transmission", <i>[Editorial] Am J Public Health</i> , Vol. 84, pp. 890-891 (1994).

EXAMINER

DATE CONSIDERED

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<u>SW</u>	Quayle AJ, Xu C, Mayer KH, Anderson DJ. "T lymphocytes and macrophages, but not motile spermatozoa, are a significant source of human immunodeficiency virus in semen", <i>J Infect Dis</i> , Vol. 176, pp. 960-968 (1997).
	Quinn TC. "Global burden of the HIV pandemic", <i>Lancet</i> , Vol. 348, pp. 348:99-106 (1996).
	Rekart ML. "The toxicity and local effects of the spermicide nonoxynol-9", <i>J Acquir Immune Defic Syndr</i> , Vol. 5, pp. 425-427 (1992).
	Ren J, Esnouf R, Garman E, Somers D, Ross C, Kirby I, Keeling J, Darby G, Jones Y, Stuart D, Stammers D. "High resolution structures of HIV-1 RT from four RT-inhibitor complexes", <i>Nat Struct Biol</i> , Vol. 2, pp. 293-302 (1995).
	Ren J, Esnouf R, Hopkins A, Ross C, Jones Y, Stammers D, Stuart D. "The structure of HIV-1 reverse transcriptase complexed with 9-chloro-TIBO: lessons for inhibitor design", <i>Structure</i> , Vol. 3, pp. 915-926 (1995).
	Roddy RE, Cordero M, Cordero C, Fortney JA. "A dosing of nonoxynol-9 and genital irritation", <i>Int J STD &amp; HIV</i> , Vol. 4, pp. 165-170 (1993).
	Roddy RE, Zeking L, Ryan KA, Tamoufe U, Weir SS, Wong EL. "A controlled trial of nonoxynol-9 film to reduce male-to-female transmission of sexually transmitted diseases", <i>N Engl J Med</i> , Vol. 339, pp. 504-510 (1998).
	Romero DL, Morge, RA, Genin MJ, Biles C, Busso M, Resnick L, Althaus IW, Reusser F, Thomas RC, Tarpley WG. "Bis(heteroaryl)piperazine (BHAP) reverse transcriptase inhibitors: structure-activity relationships of novel substituted indole analogues and the identification of 1-[(5-methanesulfonamido-1H-indol-2-yl)-carbonyl]-4-[3-[(1-methylethyl)amino]-pyridinyl]piperazine monomethanesulfonate (U-90152S), a second-generation clinical candidate", <i>J Med Chem</i> , Vol. 36, pp. 1505-1508 (1993).
	Rosenstein IJ, Stafford MK, Kitchen VS, Ward H, Weber JN, Taylor-Robinson D. "Effect of normal vaginal flora of three intravaginal microbicides potentially active against human immunodeficiency virus type 1", <i>J Infect Dis</i> , Vol. 177, pp. 1386-1390 (1998).
	Smerdon SJ, Jager J, Wang J, Kohlstaedt LA, Chirino AJ, Friedman JM, Rice PA, Steitz TA. "Structure of the binding site for nonnucleoside inhibitors of the reverse transcriptase of human immunodeficiency virus type 1", <i>Proc Natl Acad Sci U S A</i> , Vol. 91, pp. 3911-3915 (1994).
	Stafford MK, Ward H, Flanagan A, Rosenstein IJ, Taylor-Robinson D, Smith JR, Weber J, Kitchen VS. "A safety of nonoxynol-9 as a vaginal microbicide: evidence of adverse effects", <i>J Acquir Immune Defic Syndr Hum Retrovirol</i> , Vol. 17, pp. 327-331 (1998).
	Tanaka H, Baba M, Hayakawa H, Sakamaki T, Miyasaka T, Ubasawa M, Takashima H, Sekiya K, Nitta I, Shigeta S, Walker RT, Balzarini J, De Clercq E. "A new class of HIV-1-specific 6-substituted acycloauridine derivatives: synthesis and anti-HIV-1 activity of 5- or 6-substituted analogues of 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine (HEPT)", <i>J Med Chem</i> , Vol. 34, pp. 349-357 (1991).
	Tryphonas L, Buttar HS. "Morphological evidence for vaginal toxicity of Delfan contraceptive cream in the rat", <i>Toxicol Lett</i> , Vol. 20, pp. 289-295 (1984).
	Uckun FM, Chelstrom LM, Ahlgren-Tuel L, Dibirdik I, Irvin JD, Langlie M-C, Myers DE. "TXU (Anti-CD7)-pokeweed antiviral protein as a potent inhibitor of human immunodeficiency virus", <i>Antimicrob Agents Chemother</i> , Vol. 42, pp. 383-388 (1998).
	Uckun FM, D'Cruz OJ. "Prophylactic contraceptives for HIV/AIDS", <i>Hum Reprod Update</i> , Vol. 5, pp. 506-514 (1999).
	Uckun FM, Mao C, Pendergrass S, Maher D, Zhu D, Tuel-Ahlgren L, Venkatachalam TK. "N-[2-(1-cyclohexenyl)ethyl]-N'-[2-(5-bromopyridyl)]-thiourea and N-[2-(1-cyclohexenyl)ethyl]-N'-[2-(5-chloropyridyl)]-thiourea as potent inhibitors of multidrug-resistant human immunodeficiency virus-1", <i>Bioorg Med Chem Lett</i> , Vol. 9, pp. 2721-2726 (1999).
	Vig R, Mao C, Venkatachalam TK, Tuel-Ahlgren L, Sudbeck E, Uckun FM. "Rational design and synthesis of phenethyl-5-bromopyridyl thiourea derivatives as potent non-nucleoside inhibitors of HIV reverse transcriptase", <i>Bioorg Med Chem</i> , Vol. 6, pp. 1789-1797 (1998).
<u>SW</u>	Weir SS, Roddy RE, Zekeng L, Feldblum PJ. "Nonoxynol-9 use, genital ulcers, and HIV infection in a cohort of sex workers", <i>Genitourin Med</i> , Vol. 71, pp. 78-81 (1995).

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	Filing Date: 12/01/2003	Group Art Unit: UNKNOWN

<u>52</u>	Wright TC Jr, Ellerbrock TV, Chiasson MA, Van Devanter N, Sun XW. "Cervical intraepithelial neoplasia in women infected with human immunodeficiency virus: prevalence, risk factors, and validity of Papanicolaou smears: New York Cervical Disease Study", <i>Obstet Gynecol</i> , Vol. 84, pp. 591-597 (1994).
<u>52</u>	Zarling JM, Moran PA, Haffar O, Sias J, Richman DD, Spina CA, Myers DE, Kuebelbeck V, Ledbetter JA, Uckun FM. "Inhibition of HIV replication by pokeweed antiviral protein targeted to CD4+ cells by monoclonal antibodies", <i>Nature</i> , Vol. 347, pp. 92-95 (1990).



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